

## **RAW SEQUENCE LISTING**

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Application Serial Number: 10/561,315  
Source: IFWP  
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IFWP

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DATE: 12/30/2005

PATENT APPLICATION: US/10/561,315

TIME: 09:16:08

Input Set : A:\19450.seq.txt

Output Set: N:\CRF4\12302005\J561315.raw

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3 <110> APPLICANT: Zhou, Xiangjun
4   Dong, John Y.
6 <120> TITLE OF INVENTION: VACCINE AGAINST SARS
8 <130> FILE REFERENCE: 19450
C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/561,315
C--> 11 <141> CURRENT FILING DATE: 2005-12-19
13 <160> NUMBER OF SEQ ID NOS: 37
15 <170> SOFTWARE: PatentIn version 3.2
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 29760
19 <212> TYPE: DNA
20 <213> ORGANISM: Sars coronaviruses (SARS-CoV)
22 <400> SEQUENCE: 1
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| 87  | gatgcagcaa  | accactcaat | tcctgatttg  | caaagagcag  | ctgtcaccat  | acttgatggt | 1980 |
| 89  | atttctgaac  | agtcattacg | tcttgctgac  | gccatgggtt  | atacttcaga  | cctgctcacc | 2040 |
| 91  | aacagtgtca  | ttattatggc | atatgtaact  | ggtggctctt  | tacaacagac  | ttctcagtgg | 2100 |
| 93  | ttgtctaate  | ttttgggcac | tactgttgaa  | aaactcaggc  | ctatctttga  | atggattgag | 2160 |
| 95  | gcgaaactta  | gtgcaggagt | tgaatttctc  | aaggatgctt  | gggagattct  | caaatttctc | 2220 |
| 97  | attacaggtg  | tttttgacat | cgtcaagggt  | caaatacagg  | ttgcttcaga  | taacatcaag | 2280 |
| 99  | gattgtgtaa  | aatgcttcat | tgatgttggt  | aacaaggcac  | tcgaaatgtg  | cattgatcaa | 2340 |
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| 103 | agcaagggac  | ttaccgctca | gtgtatacgt  | ggcaaggagc  | agctgcaact  | actcatgcct | 2460 |
| 105 | cttaaggcac  | caaaagaagt | aacctttctt  | gaagggtgatt | cacatgacac  | agtacttacc | 2520 |
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| 125 | gaggacgatg  | cagagtgtga | ggaagaagaa  | attgatgaaa  | cctgtgaaca  | tgagtacggt | 3120 |
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| 139 | ggccctctta  | cagtaggagg | gtcttggttg  | ctttctggac  | ataatcttgc  | taagaagtgt | 3540 |
| 141 | ctgcatgttg  | ttggacctaa | cctaaatgca  | ggtgaggaca  | tccagcttct  | taaggcagca | 3600 |
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| 229 | caggctacaa  | ccaagacaac  | gttcaaacca  | aacacttggg | gtttacgttg  | tctttggagt  | 6240 |
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| 237 | atacttaaac  | catcagatga  | aggtgtttaa  | gtaacacaag | agttaggtca  | tgaggatctt  | 6480 |
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| 275 | gacacatttt  | gcactggtag  | tacattcatt  | agtgatgaag | ttgctcgtga  | tttgtcactc  | 7620 |
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| 313 | gcatggttta  | gccagcgtgg  | tggttcatac  | aaaaatgaca  | aaagctgccc  | tgtagtagct  | 8760  |
| 315 | gctatcatta  | caagagagat  | tggtttcata  | gtgcctggct  | taccgggtac  | tgtgttgaga  | 8820  |
| 317 | gcaatcaatg  | gtgacttctt  | gcattttcta  | cctcgtgttt  | ttagtgtgtg  | tggcaacatt  | 8880  |
| 319 | tgctacacac  | cttccaaact  | cattgagtat  | agtgattttg  | ctacctctgc  | ttgcgttctt  | 8940  |
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| 329 | atttgccctat | ctaccagtgg  | tagatgggtt  | cttaataatg  | agcattacag  | agctctatca  | 9240  |
| 331 | ggagttttct  | gtggtgttga  | tgcatgaat   | ctcatagcta  | acatctttac  | tcctctgtg   | 9300  |
| 333 | caacctgtgg  | gtgctttaga  | tgtgtctgct  | tcagttagtg  | ctgggtggtat | tattgccata  | 9360  |
| 335 | ttggtgactt  | gtgctgccta  | ctactttatg  | aaattcagac  | gtgcttttgg  | tgagtacaac  | 9420  |
| 337 | catgttgttg  | ctgctaattg  | acttttgttt  | ttgatgtctt  | tcactatact  | ctgtctggca  | 9480  |
| 339 | ccagcttaca  | gctttctgcc  | gggagtctac  | tcagtctttt  | acttgtactt  | gacattctat  | 9540  |
| 341 | ttcaccaatg  | atgtttcatt  | cttggtcac   | cttcaatggt  | ttgccatgtt  | ttctcctatt  | 9600  |
| 343 | gtgccttttt  | ggataacagc  | aatctatgta  | ttctgtattt  | ctctgaagca  | ctgccattgg  | 9660  |
| 345 | ttctttaaca  | actatcttag  | gaaaagagtc  | atgtttaatg  | gagttacatt  | tagtaccttc  | 9720  |
| 347 | gaggaggctg  | ctttgtgtac  | ctttttgtct  | aacaaggaaa  | tgtacctaaa  | attgcgtagc  | 9780  |
| 349 | gagacactgt  | tgccacttac  | acagtataac  | aggtatcttg  | ctctatataa  | caagtacaag  | 9840  |
| 351 | tatttcagtg  | gagccttaga  | tactaccagc  | tatcgtgaag  | cagcttgctg  | ccacttagca  | 9900  |
| 353 | aaggctctaa  | atgacttttag | caactcaggt  | gctgatgttc  | tctaccaacc  | accacagaca  | 9960  |
| 355 | tcaatcactt  | ctgctgttct  | gcagagtggg  | tttaggaaaa  | tggcattccc  | gtcaggcaaa  | 10020 |
| 357 | gttgaaggat  | gcatggtaca  | agtaacctgt  | ggaactacaa  | ctcttaattg  | attgtggttg  | 10080 |
| 359 | gatgacacag  | tatactgtcc  | aagacatgtc  | atttgcacag  | cagaagacat  | gcttaatcct  | 10140 |
| 361 | aactatgaag  | atctgctcat  | tcgcaaatec  | aaccatagct  | ttcttgttca  | ggctggcaat  | 10200 |
| 363 | gttcaacttc  | gtgttattgg  | ccattctatg  | caaaattgtc  | tgcttaggct  | taaagttgat  | 10260 |
| 365 | acttctaacc  | ctaagacacc  | caagtataaa  | tttgtccgta  | tccaacctgg  | tcaaactatt  | 10320 |
| 367 | tcagttctag  | catgctacaa  | tggttcacca  | tctggtgttt  | atcagtgtgc  | catagacct   | 10380 |
| 369 | aatcatacca  | ttaaaggttc  | tttccttaat  | ggatcatgtg  | gtagtgttgg  | ttttaacatt  | 10440 |
| 371 | gattatgatt  | gcgtgtcttt  | ctgctatatg  | catcatatgg  | agcttccaac  | aggagtacac  | 10500 |
| 373 | gctggtactg  | acttagaagg  | taaattctat  | gggtccattg  | ttgacagaca  | aactgcacag  | 10560 |
| 375 | gctgcaggta  | cagacacaac  | cataacatta  | aatgttttgg  | catggctgta  | tgctgctgtt  | 10620 |

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/561,315

DATE: 12/30/2005

TIME: 09:16:08

Input Set : A:\19450.seq.txt

Output Set: N:\CRF4\12302005\J561315.raw

|     |            |             |             |             |             |             |       |
|-----|------------|-------------|-------------|-------------|-------------|-------------|-------|
| 377 | atcaatggtg | ataggtggtt  | tcttaataga  | ttcaccacta  | ctttgaatga  | ctttaacctt  | 10680 |
| 379 | gtggcaatga | agtacaacta  | tgaacctttg  | acacaagatc  | atgttgacat  | attgggacct  | 10740 |
| 381 | ctttctgctc | aaacaggaat  | tgccgtctta  | gatatgtgtg  | ctgctttgaa  | agagctgctg  | 10800 |
| 383 | cagaatggta | tgaatggtcg  | tactatcctt  | ggtagcacta  | ttttagaaga  | tgagtttaca  | 10860 |
| 385 | ccatttgatg | ttgttagaca  | atgctctggt  | gttaccttcc  | aaggtaagtt  | caagaaaatt  | 10920 |
| 387 | gttaagggca | ctcatcattg  | gatgctttta  | actttcttga  | catcactatt  | gattcttggt  | 10980 |
| 389 | caaagtacac | agtggtcact  | gtttttcttt  | gtttacgaga  | atgctttctt  | gccatttact  | 11040 |
| 391 | cttggtatta | tggcaattgc  | tgcatgtgct  | atgctgcttg  | ttaagcataa  | gcacgcattc  | 11100 |
| 393 | ttgtgcttgt | ttctgttacc  | ttctcttgca  | acagttgctt  | actttaatat  | ggtctacatg  | 11160 |
| 395 | cctgctagct | gggtgatgcg  | tatcatgaca  | tggcttgaat  | tggctgacac  | tagcttgctc  | 11220 |
| 397 | ggttataggc | ttaaggattg  | tgttatgtat  | gcttcagctt  | tagttttgct  | tattctcatg  | 11280 |
| 399 | acagctcgca | ctgtttatga  | tgatgctgct  | agacgtgttt  | ggacactgat  | gaatgtcatt  | 11340 |
| 401 | acacttgttt | acaaagtcta  | ctatggtaat  | gctttagatc  | aagctatttc  | catgtgggcc  | 11400 |
| 403 | ttagttatct | ctgtaacctc  | taactattct  | gggtgctgta  | cgactatcat  | gttttttagct | 11460 |
| 405 | agagctatag | tgtttggtg   | tggttagtat  | taccattgtt  | tatttattac  | tggcaacacc  | 11520 |
| 407 | ttacagtgtg | tcatgcttgt  | ttattgtttc  | ttaggctatt  | gttgctgctg  | ctactttggc  | 11580 |
| 409 | cttttctgtt | tactcaaccg  | ttacttcagg  | cttactcttg  | gtgtttatga  | ctacttggtc  | 11640 |
| 411 | tctacacaag | aatttaggta  | tatgaactcc  | caggggcttt  | tgccctctaa  | gagtagtatt  | 11700 |
| 413 | gatgctttca | agcttaacat  | taagttgttg  | ggatttgtag  | gtaaaccatg  | tatcaagggt  | 11760 |
| 415 | gctactgtac | agtctaaaat  | gtctgacgta  | aagtgcacat  | ctgtggtact  | gctctcggtt  | 11820 |
| 417 | cttcaacaac | ttagagtaga  | gtcatcttct  | aaattgtggg  | cacaatgtgt  | acaactccac  | 11880 |
| 419 | aatgatattc | ttcttgcaaa  | agacacaact  | gaagctttcg  | agaagatggt  | ttctcttttg  | 11940 |
| 421 | tctgttttgc | tatccatgca  | gggtgctgta  | gacattaata  | ggttggtgca  | ggaaatgctc  | 12000 |
| 423 | gataaccgtg | ctactcttca  | ggctattgct  | tcagaattta  | gttctttacc  | atcatatgcc  | 12060 |
| 425 | gcttatgcca | ctgcccagga  | ggcctatgag  | caggctgtag  | ctaaggtgta  | ttctgaagtc  | 12120 |
| 427 | gttctcaaaa | agttaaagaa  | atctttgaat  | gtggctaaat  | ctgagtttga  | ccgtgatgct  | 12180 |
| 429 | gccatgcaac | gcaagttgga  | aaagatggca  | gatcaggcta  | tgacccaaat  | gtacaaacag  | 12240 |
| 431 | gcaagatctg | aggacaagag  | ggcaaaaagta | actagtgcta  | tgcaaaacaat | gctcttcact  | 12300 |
| 433 | atgcttagga | agcttgataa  | tgatgcactt  | aacaacatta  | tcaacaatgc  | gcgtgatggt  | 12360 |
| 435 | tgtgttccac | tcaacatcat  | accattgact  | acagcagcca  | aactcatggt  | tggtgtccct  | 12420 |
| 437 | gattatggta | cctacaagaa  | cacttgatgt  | ggtaacacct  | ttacatatgc  | atctgcactc  | 12480 |
| 439 | tgggaaatcc | agcaagttgt  | tgatgcggt   | agcaagattg  | ttcaacttag  | tgaaattaac  | 12540 |
| 441 | atggacaatt | caccaaattt  | ggcttgacct  | cttattgtta  | cagctctaag  | agccaactca  | 12600 |
| 443 | gctgttaaag | tacagaataa  | tgaactgagt  | ccagtagcac  | tacgacagat  | gtcctgtgct  | 12660 |
| 445 | gctggtacca | cacaaacagc  | ttgtactgat  | gacaatgcac  | ttgcctacta  | taacaattcg  | 12720 |
| 447 | aaggagggtg | ggtttggtgct | ggcattacta  | tcagaccacc  | aagatctcaa  | atgggctaga  | 12780 |
| 449 | ttccctaaga | gtgatggtac  | aggtacaatt  | tacacagaac  | tgggaaccacc | ttgtagggtt  | 12840 |
| 451 | gttacagaca | caccaaagg   | gcctaaagt   | aaatacttgt  | acttcatcaa  | aggcttaaac  | 12900 |
| 453 | aacctaaata | gaggtatggt  | gctgggcagt  | ttagctgcta  | cagtacgtct  | tcaggctgga  | 12960 |
| 455 | aatgctacag | aagtacctgc  | caattcaact  | gtgctttcct  | tctgtgcttt  | tgcaagtagac | 13020 |
| 457 | cctgctaaag | catataagga  | ttacctagca  | agtggaggac  | aaccaatcac  | caactgtgtg  | 13080 |
| 459 | aagatgttgt | gtacacacac  | tggtagagga  | caggcaatta  | ctgtaacacc  | agaagctaac  | 13140 |
| 461 | atggaccaag | agtcctttgg  | tgggtgcttca | tggtgtctgt  | attgtagatg  | ccacattgac  | 13200 |
| 463 | catccaaatc | ctaaaggatt  | ctgtgacttg  | aaaggttaagt | acgtccaaat  | acctaccact  | 13260 |
| 465 | tgtgctaatt | acccagtggg  | ttttacactt  | agaaacacag  | tctgtaccgt  | ctgcggaatg  | 13320 |
| 467 | tggaaagggt | atggctgtag  | ttgtgaccaa  | ctccgcgaac  | ccttgatgca  | gtctgcggat  | 13380 |
| 469 | gcatcaacgt | ttttaaacgg  | gtttgcggtg  | taagtgcagc  | ccgtcttaca  | ccgtgcggca  | 13440 |
| 471 | caggcactag | tactgatgtc  | gtctacagg   | cttttgatat  | ttacaacgaa  | aaagttgctg  | 13500 |
| 473 | gttttgcaaa | gttcctaaaa  | actaattgct  | gtcgcttcca  | ggagaaggat  | gaggaaggca  | 13560 |

## VERIFICATION SUMMARY

DATE: 12/30/2005

PATENT APPLICATION: US/10/561,315

TIME: 09:16:09

Input Set : A:\19450.seq.txt

Output Set: N:\CRF4\12302005\J561315.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:1292 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:

L:3890 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:

L:4218 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:

L:4298 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:

L:4346 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:

L:4374 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:

L:4438 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:

L:4462 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:

L:4482 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:

L:4522 M:259 W: Allowed number of lines exceeded, <213> ORGANISM:

L:4638 M:259 W: Allowed number of lines exceeded, <213> ORGANISM: